

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF MD 410 (RIVERDALE ROAD) AND MD 295 (BALTIMORE-WASHINGTON PARKWAY - WEST RAMP) IN PRINCE GEORGE'S COUNTY. THE MODIFICATION INCLUDES THE INSTALLATION OF ACCESSIBLE PUSHBUTTONS AND COUNTDOWN LED PEDESTRIAN SIGNALS, NEW LED VEHICULAR TRAFFIC SIGNALS AND VIDEO DETECTION.

MD 410 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR PHASE, FULLY-ACTUATED TRAFFIC MODE. THE EXISTING WESTBOUND EXCLUSIVE/PERMISSIVE LEFT TURN, MAINLINE AND SIDE STREET ALTERNATE PEDESTRIAN PHASES WILL REMAIN. THE EAST AND SOUTH LEG PEDESTRIAN PHASES WILL BE REMOVED.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET, CONTROLLER, EQUIPMENT AND ASSOCIATED HARNESSES SHALL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL ONE (1) 2 WIRE CENTRAL CONTROL UNIT AND ONE (1) VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS WITHIN THE CABINET.

APS WILL FUNCTION AS FOLLOWS:

FOR RIVERDALE ROAD

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS RIVERDALE AT B/W PARKWAY RAMP."
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

FOR RAMP

- A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS B/W PARKWAY RAMP AT RIVERDALE."
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

THE CONTACT PERSONS FOR DISTRICT #3 / OOTS/ ARE AS FOLLOWS:

District #3

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: 301-513-7404

Mr. Augie Reblish
District Utility Engineer
Phone: 301-513-7350

Mr. Vernon Stinnett, Jr.
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Kevin Nowak
Assistant District Engineer - Construction
Phone: 301-513-7336

Office Of Traffic & Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Team Leader Signal Operations
Phone: 410-787-7650

Mr. Eugene Bailey
Team Leader Sign Operations
410-787-7670

The Power Company Representative Is:
Potomac Electric Power Company
8500 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

EQUIPMENT LIST 'A'

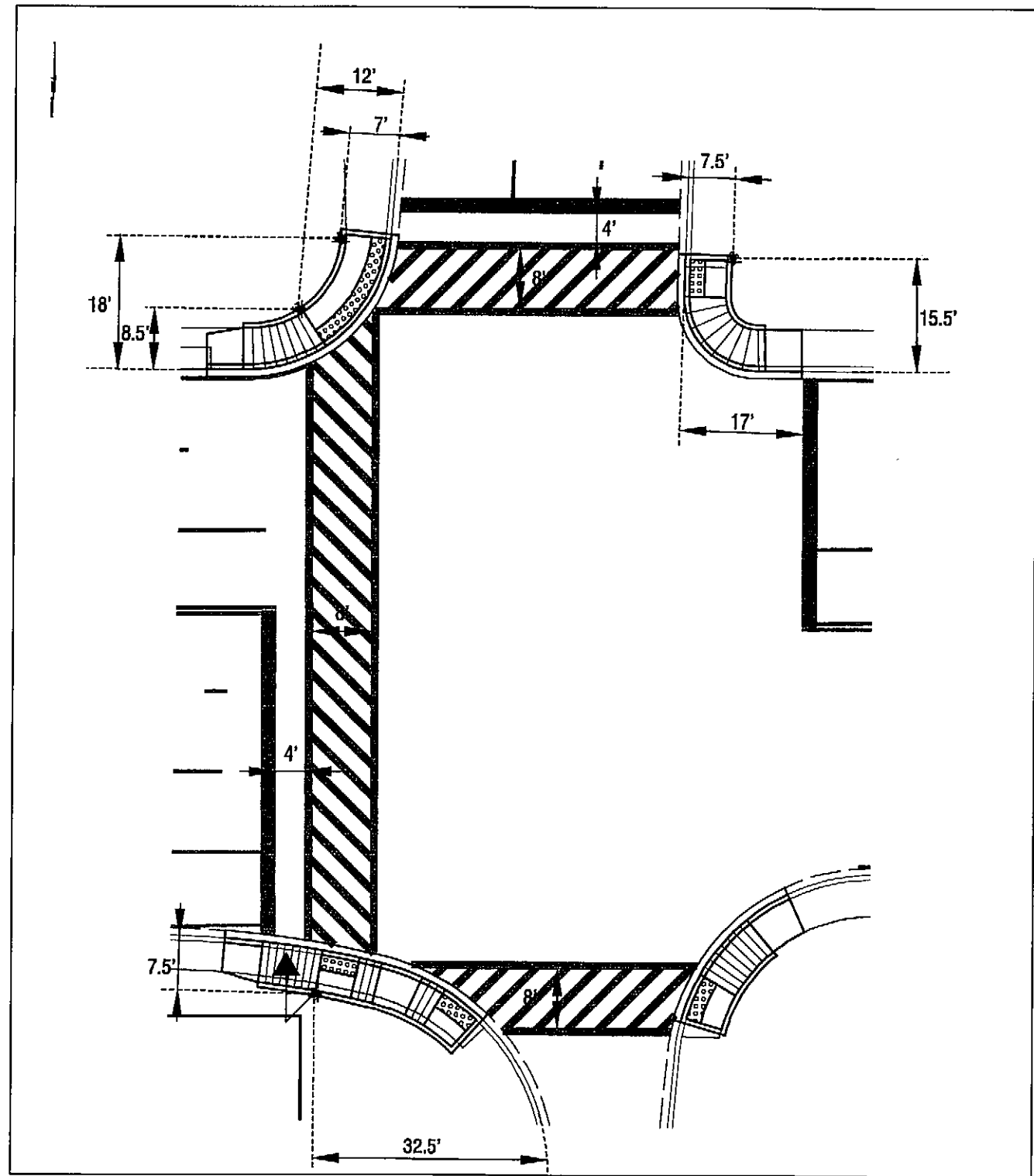
EQUIPMENT TO BE FURNISHED BY THE SHA.

CATEGORY CODE	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
973023	140 SF	SHEET ALUMINUM SIGNS:
		8 EA - M6-2 (21 IN. x 15 IN.) F.Y.G.
		8 EA - SI-1 (36 IN. x 36 IN.)
		1 EA - D-3(I) (96 IN. x 16 IN.) "RIVERDALE RD"
		1 EA - SHIELD ASSEMBLY (30 IN. x 51 IN.) "WEST, MD 410, RIGHT ARROW"
		1 EA - SHIELD ASSEMBLY (48 IN. x 75 IN.) "EAST, MD 410, LEFT ARROW"
		2 EA - RIO-3(I) (9 IN. x 15 IN.) "PUSH BUTTON TO CROSS RIVERDALE ROAD"
		2 EA - RIO-3(I) (9 IN. x 15 IN.) "PUSH BUTTON TO CROSS RAMP"

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 2 AND 5	R	R	←GG	←GG	G	R	R	WK	DW	DW	WK	←
PHASE 5 CHANGE	R	R	←YG	←YG	G	R	R	WK	DW	DW	WK	↓
PHASE 2 & 6	G	G	G	G	G	R	R	WK	WK	DW	DW	←
PED CLEARANCE COUNTDOWN	G	G	G	G	G	R	R	FLDW	FLDW	DW	DW	→
PHASE 2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW	DW	DW	↑
PHASE 4	R	R	R	R	R	G	G	DW	DW	DW	DW	↓
PHASE 4 CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	WK	↓
PHASE 4 ALT.	R	R	R	R	R	G	G	DW	DW	WK	WK	↓
PED CLEARANCE COUNTDOWN	R	R	R	R	R	G	G	DW	DW	FLDW	FLDW	↓
PHASE 4 ALT. CHANGE	R	R	R	R	R	Y	Y	DW	DW	DW	DW	↓
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK	DARK	DARK	↓

SIGNAL EQUIPMENT LAYOUT DETAIL
N.T.S.



EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CATEGORY CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	2 CY	TEST PIT EXCAVATION
585621	675 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585625	130 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
800000	1 EA	2 WIRE CENTRAL CONTROL UNIT
800000	3 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	4 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON
800000	4 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION - POLE MOUNT
800000	1 LS	REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT
801004	4 CY	CONCRETE FOR SIGNAL FOUNDATION
801106	90 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
802501	200 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	275 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	90 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	105 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
810605	4 EA	NON INVASIVE DETECTOR, 1000 FOOT LEAD-IN CABLE
811001	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
811002	2 EA	REMOVE ELECTRICAL HANDHOLE
813014	90 SF	INSTALL GROUND MOUNTED SIGN
813015	50 SF	INSTALL OVERHEAD SIGN
813022	10 SF	REMOVE EXISTING GROUND MOUNTED SIGNS
816001	4 EA	VIDEO DETECTION (TERRA) CAMERA
818004	4 EA	10 FOOT BREAKAWAY PEDESTAL POLE
837001	2 EA	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860284	22 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860292	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
861105	660 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	685 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

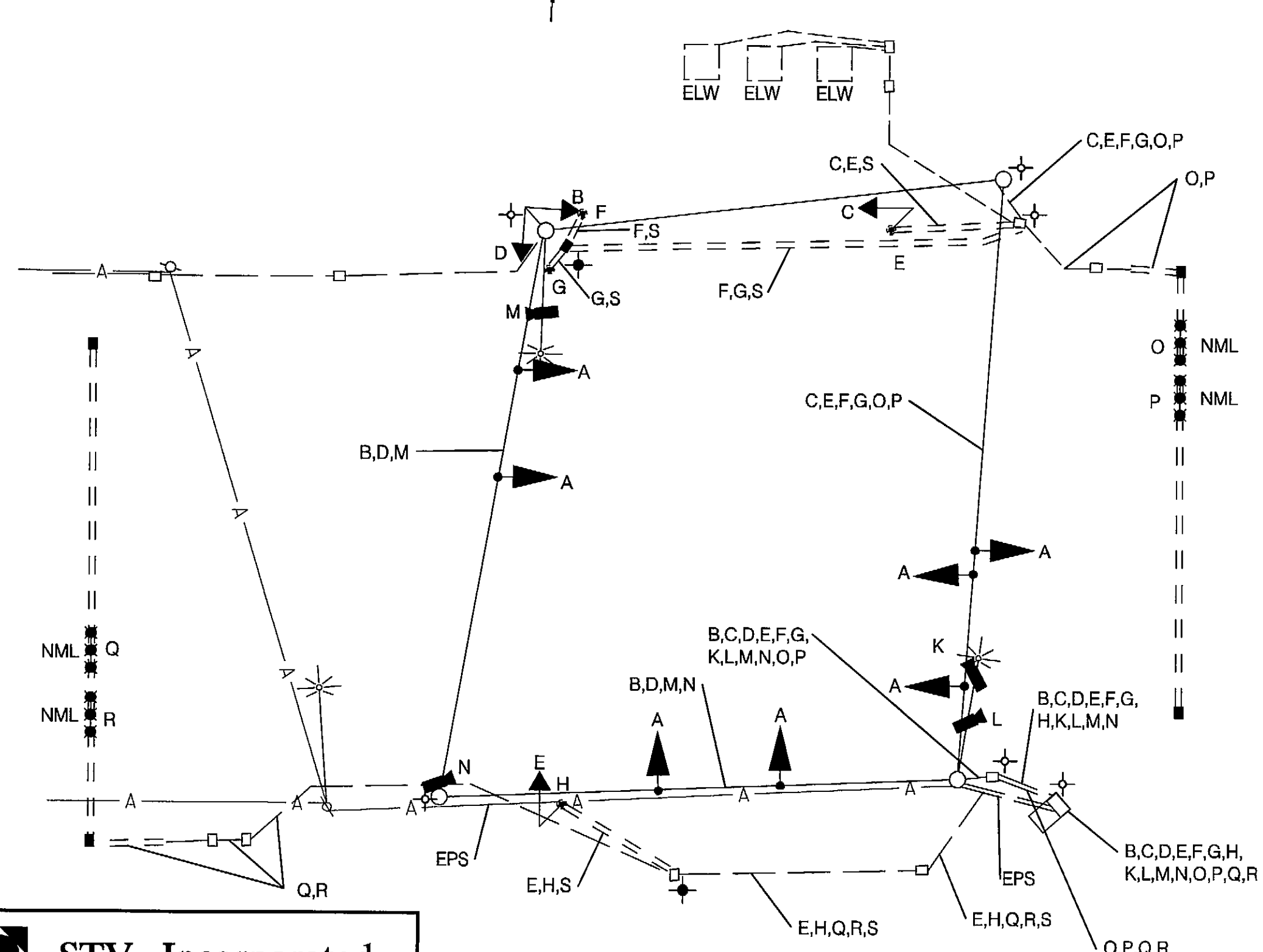
EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO. QUANTITY DESCRIPTION

NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM
N.T.S.



LEGEND

- A - USE EXISTING CABLE
- B - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- C - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
- D - ELECTRICAL CABLE - 3 CONDUCTOR (NO. 18 AWG)
- E - NON INVASIVE DETECTOR CABLE 1000' LEAD-IN
- F - NO. 6 STRANDED BARE COPPER GROUND WIRE
- G - EXISTING POWER SERVICE
- H - EXISTING LOOP WIRE
- I - PROPOSED NON-INVASIVE MICROLOOP PROBE SET
- J - PROPOSED GROUND ROD - 3/4 IN. DIAMETER x 10 FOOT LENGTH
- K - EXISTING GROUND ROD - 3/4 IN. DIAMETER x 10 FT. LENGTH

STV Incorporated
engineers/architects/planners/construction managers
7125 Ambassador Road, Baltimore, MD 21244-2722 (410) 944-9112

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 410 (RIVERDALE ROAD) AT
MD 295 (BALTIMORE-WASHINGTON PARKWAY - WEST RAMP)

GENERAL INFORMATION

SCALE NONE ADVERTISED DATE 6/2009 CONTRACT NO. PG7416168

DESIGNED BY MCG COUNTY PRINCE GEORGE'S
DRAWN BY MCG LOGMILE 16041005.02
CHECKED BY MTS TMS NO. J-771
F.A.P. NO. TOD NO.

TS NO. 2333B DRAWING SG-04 OF 06 SHEET NO. OF